

Appl. No. : 10/638,173  
Filed : August 6, 2003

## REMARKS

Applicants would like to thank Examiner Forman for the personal interview held with Applicants' representative on June 28, 2006.

Claims 60-93 are currently pending and presented for examination. Claims 1-59 have been canceled without prejudice or disclaimer. New claims 60-93 have been added. Support for claims 60-93 can be found throughout the claims and specification as originally filed. In particular, support for new independent claims 60, 71 and 83 can be found at page 11, lines 25-27, at page 39, lines 15-17 and elsewhere throughout the specification. Support for dependent claims 61, 72 and 84 can be found at page 13, lines 1-9, at page 38, lines 14-21 and elsewhere throughout the specification. Support for dependent claims 63, 74 and 86 can be found at page 13, lines 20-34 and elsewhere throughout the specification. Accordingly no new matter has been added by way of these amendments.

After careful consideration of the instant Office Action, Applicants respectfully traverse the Examiner's rejections.

### Rejection of claims 27-59 under 35 U.S.C. § 112, second paragraph.

The Examiner rejects claims 27-59 under 35 U.S.C. § 112, second paragraph as allegedly being indefinite. In particular, the Examiner asserts that claims 27-42 are indefinite for the recitation "each of said microspheres" because the recitation allegedly lacks proper antecedent basis.

Applicants have replaced claims 27-59 with new claims 60-93. Applicants believe that these new claims are not indefinite. As such, Applicants respectfully request that the Examiner withdraw the rejection under 35 U.S.C. § 112, second paragraph.

### Rejection of claims 27, 28, 38, 43 and 53 under 35 U.S.C. § 102(b).

The Examiner rejects claims 27, 28, 38, 43 and 53 as allegedly anticipated under 35 U.S.C. § 102(b) by EP 0392546 (Drmanac et al.). In particular, the Examiner asserts that Drmanac et al. disclose a composition comprising each element recited in claim 27 and a method for making a composition comprising each step recited in claim 43. Such elements and steps

Appl. No. : 10/638,173  
Filed : August 6, 2003

include a substrate, a first and second assay location, a population of microspheres wherein each microsphere comprises a bioactive agent and wherein the assay locations are separated from each other by a physical partition. The Examiner goes on to assert that Drmanac et al. also disclose additional limitations recited in dependent claims 28, 38, and 53.

Applicants maintain that claims 27, 28, 38, 43 and 53 are patentable; however, in order to expedite issuance of the instant application, Applicants have canceled claims 27-59 and provided new claims 60-93. Applicants respectfully submit that Drmanac et al do not disclose all the limitations of new independent claims 60, 71 and 83. For example, claims 60, 71 and 83 recite that the first assay location is separated from said second assay location by a non-permanent sealant. Drmanac et al. do not disclose a first assay location being separated from a second assay location by a non-permanent sealant. As such, Applicants respectfully submit that claims 60, 71 and 83 as well as claims dependent thereon are not anticipated by Drmanac et al.

Rejection of claims 27, 28, 31, 32, 38, 43, 46, 47, 53, 58 and 59 under 35 U.S.C. § 102(e).

The Examiner rejects claims 27-28, 31, 32, 38, 43, 46, 47, 53, 58 and 59 as allegedly anticipated under 35 U.S.C. § 102(e) by U.S. Patent No. 6,429, 027 (Chee et al. – the ‘027 patent). In particular, the Examiner asserts that the ‘027 patent discloses a composition comprising each element recited in claim 27 and a method for making a composition comprising each step recited in claim 43. Such elements and steps include a substrate, a first and second assay location, a population of microspheres wherein each microsphere comprises a bioactive agent and wherein the assay locations are separated from each other by a physical partition. The Examiner goes on to assert that the ‘027 patent also discloses additional limitations recited in dependent claims 28, 31, 32, 38, 46, 47, 53, 58 and 59.

Applicants maintain that claims 27, 28, 31, 32, 38, 43, 46, 47, 53, 58 and 59 are patentable; however, in order to expedite issuance of the instant application, Applicants have canceled claims 27-59 and provided new claims 60-93. Applicants respectfully submit that the ‘027 patent does not disclose all the limitations of new independent claims 60, 71 and 83. In particular, the ‘027 patent does not disclose a first assay location being separated from a second assay location by a non-permanent sealant. As such, Applicants submit that claims 60, 71 and 83 as well as claims dependent thereon are not anticipated by the ‘027 patent.

**Appl. No.** : 10/638,173  
**Filed** : August 6, 2003

Rejection of claims 27, 28, 31, 32, 38, 43, 46, 47, 53, 58 and 59 under 35 U.S.C. § 102(e).

The Examiner rejects claims 27, 28, 31, 32, 38, 43, 46, 47, 53, 58 and 59 as allegedly anticipated under 35 U.S.C. § 102(e) by U.S. Patent No. 6,998,274 (Chee et al. – the ‘274 patent). In particular, the Examiner asserts that the ‘274 patent discloses a composition comprising each element recited in claim 27 and a method for making a composition comprising each step recited in claim 43. Such elements and steps include a substrate, a first and second assay location, a population of microspheres wherein each microsphere comprises a bioactive agent and wherein the assay locations are separated from each other by a physical partition. The Examiner goes on to assert that the ‘274 patent discloses additional limitations recited in dependent claims 28, 31, 32, 38, 46, 47, 53, 58 and 59.

Applicants maintain that claims 27, 28, 31, 32, 38, 43, 46, 47, 53, 58 and 59 are patentable; however, in order to expedite issuance of the instant application, Applicants have canceled claims 27-59 and provided new claims 60-93. Applicants respectfully submit that the ‘274 patent does not disclose all the limitations of new independent claims 60, 71 and 83. In particular, the ‘274 patent does not disclose a first assay location being separated from a second assay location by a non-permanent sealant. As such, Applicants submit that claims 60, 71 and 83 as well as claims dependent thereon are not anticipated by the ‘274 patent.

Rejection of claims 27-32, 38-47 and 53-59 under 35 U.S.C. § 102(e).

The Examiner rejects claims 27-32, 38-47 and 53-59 as allegedly anticipated under 35 U.S.C. § 102(e) by U.S. Patent No. 6,232,066 (Felder et al.). In particular, the Examiner asserts that Felder et al. disclose a composition comprising each element recited in claim 27 and a method for making a composition comprising each step recited in claim 43. Such elements and steps include a substrate, a first and second assay location, a population of microspheres wherein each microsphere comprises a bioactive agent and wherein the assay locations are separated from each other by a physical partition. The Examiner goes on to assert that Felder et al. also disclose additional limitations recited in dependent claims 28-32, 38-42, 44-47 and 53-59. For example, the Examiner asserts that Felder et al. disclose a non-permanent sealant as set forth in claim 29.

**Appl. No.** : **10/638,173**  
**Filed** : **August 6, 2003**

Applicants maintain that claims 27-32, 38-47 and 53-59 are patentable; however, in order to expedite issuance of the instant application, Applicants have canceled claims 27-59 and provided new claims 60-93. Applicants respectfully submit that Felder et al. do not disclose all the limitations of new independent claims 60, 71 and 83. Independent claims 60 and 71 both recite the limitation that the microspheres are associated with depressions that are configured to contain a single microsphere. In particular, Felder et al. do not disclose or suggest depressions that are configured to contain a single microsphere. Furthermore, independent claim 83 recites a limitation that requires every depression on the array to contain either one microsphere or no microsphere. Felder et al. do not disclose or suggest an array substrate wherein every depression contains either one microsphere or no microsphere. As such, Applicants submit that claims 60, 71 and 83 as well as claims dependent thereon are not anticipated by Felder et al.

Rejection of claims 33-35 and 48-50 under 35 U.S.C. § 103(a).

The examiner rejects claims 33-35 and 48-50 as allegedly obvious under 35 U.S.C. § 103(a) over Felder et al. in view of U.S. Patent No. 6,555,361 (Lyman et al.). In particular, the Examiner asserts that Felder et al. disclose a composition and method for making the composition comprising substrate comprising a surface with first and second assay locations wherein the assay location have discrete sites to configured to hold a single microsphere having bioactive agents wherein the microspheres are randomly distributed and wherein the locations are separated by a partition wherein the partition is a non-permanent sealant. The Examiner then states, however, that Felder et al. do not disclose a gasket. The Examiner asserts that this deficiency can be cured by the Lyman et al. reference which allegedly discloses a hybridization composition comprising a sealant.

Applicants maintain that claims 33-35 and 48-50 are nonobvious; however, in order to expedite issuance of the instant application, Applicants have canceled claims 27-59 and provided new claims 60-93. Applicants respectfully submit that the combination of Felder et al. and Lyman et al. does not disclose or suggest all the limitations of any of the newly presented claims. As mentioned above, independent claims 60 and 71 recite the limitation that the depressions are configured to contain a single microsphere. Claim 83 recites a limitation that requires every depression on the array to contain either one microsphere or no microsphere. As set forth above,

**Appl. No.** : 10/638,173  
**Filed** : August 6, 2003

Felder et al. do not disclose or suggest either of these limitations. Furthermore, Lyman et al. do not disclose or suggest either of these limitations. As such, the combination of Felder et al. and Lyman et al. renders none of claims 60-93 obvious.

Rejection of claims 36, 37, 51 and 52 under 35 U.S.C. § 103(a)

The Examiner rejects claims 36, 37, 51 and 52 as allegedly obvious under 35 U.S.C. § 103(a) over Felder et al. in view of U.S. Patent No. 6,310,189 (Fodor et al.). In particular, the Examiner asserts that Felder et al. disclose a composition and method for making the composition comprising substrate comprising a surface with first and second assay locations wherein the assay location have discrete sites to configured to hold a single microsphere having bioactive agents wherein the microspheres are randomly distributed and wherein the locations are separated by a partition. In addition, the Examiner asserts that Felder et al. disclose wells separated by 500  $\mu\text{m}$  and subdivided to provide up to 900 wells within wells. The Examiner states that Felder et al. suggest assay locations less than 15  $\mu\text{m}$ . Further, the Examiner asserts that Fodor et al. disclose a similar composition comprising microsphere containing regions wherein the regions have a claimed spacing of 10  $\mu\text{m}$ .

Applicants maintain that claims 36, 37, 51 and 52 are nonobvious; however, in order to expedite issuance of the instant application, Applicants have canceled claims 27-59 and provided new claims 60-93. Applicants respectfully submit that the combination of Felder et al. and Fodor et al. does not disclose or suggest all the limitations of any of the newly presented claims. As described above, Felder et al. do not disclose or suggest depressions that are configured to contain a single microsphere or an array substrate wherein every depression contains either one microsphere or no microsphere. Additionally, Fordor et al. do not disclose or suggest either of these limitations. As such, the combination of Felder et al. and Fodor et al. renders none of claims 60-93 obvious.

Rejection for double patenting over U.S. Patent No. 6,429,027.

The Examiner rejects claims 27-29, 36-44, and 51-59 under the judicially created doctrine of obviousness-type double patenting over claims 1-30 of U.S. Patent No. 6,429,027 (the '027 patent). In particular, the Examiner asserts that both claim sets are drawn to compositions

**Appl. No. : 10/638,173**  
**Filed : August 6, 2003**

comprising microsphere populations within assay locations, but differ in that the composition claimed in the patent defines a number of microspheres per location.

Applicants maintain that claims 27-29, 36-44, and 51-59 are nonobvious in view of claims 1-30 of the '027 patent; however, in order to expedite issuance of the instant application, Applicants have canceled claims 27-59 and provided new claims 60-93. Applicants respectfully submit that, in view of claims 1-30 of the '027 patent, those of ordinary skill in the art would not be motivated to separate the first assay location from the second assay location using non-permanent sealant. As such, Applicants respectfully submit that new independent claims 60, 71 and 83, as well as the new claims dependent thereon, should not be subject to an obviousness-type double patenting rejection over claims 1-30 of the '027 patent.

Rejection for double patenting over U.S. Patent No. 6,998,274.

The Examiner rejects claims 27-29, 36-44, and 51-59 under the judicially created doctrine of obviousness-type double patenting over claims 1-21 of U.S. Patent No. 6,998,274 (the '274 patent). In particular, the Examiner asserts that both claim sets are drawn to compositions comprising microsphere populations within assay locations, but differ in that the composition claimed in the patent defines a number of microspheres per location.

Applicants maintain that claims 27-29, 36-44, and 51-59 are nonobvious in view of claims 1-21 of the '274 patent; however, in order to expedite issuance of the instant application, Applicants have canceled claims 27-59 and provided new claims 60-93. Applicants respectfully submit that, in view of claims 1-21 of the '274 patent, those of ordinary skill in the art would not be motivated to separate the first assay location from the second assay location using non-permanent sealant. As such, Applicants respectfully submit that new independent claims 60, 71 and 83, as well as the new claims dependent thereon, should not be subject to an obviousness-type double patenting rejection over claims 1-21 of the '274 patent.

Rejection for double patenting over U.S. Patent No. 6,770,441.

The Examiner rejects claims 27-59 under the judicially created doctrine of obviousness-type double patenting over claims 1-40 of U.S. Patent No. 6,770,441 (the '441 patent). In particular, the Examiner asserts that both claim sets are drawn to compositions comprising

Appl. No. : 10/638,173  
Filed : August 6, 2003

microsphere populations within assay locations, but differ in that the composition claimed in the patent defines a substrate as a rigid support and molded layer.

Applicants respectfully disagree with the Examiner, but in order to expedite issuance of the instant application, Applicants are filing a terminal disclaimer herewith.

Rejection for double patenting over Application No. 10/767,476.

The Examiner provisionally rejects claims 27-29, 36-44 and 51-59 under the judicially created doctrine of obviousness-type double patenting over claims 29-50 of copending Application No. 10/767,476 (the '476 application). In particular, the Examiner asserts that both claim sets are drawn to compositions comprising microsphere populations within assay locations, but differ in the arrangement of the limitations within the claims.

Applicants respectfully disagree, however, Applicants request that the Examiner hold this provisional rejection in abeyance until the currently pending claims of the instant application are agreed to be in condition for allowance. Applicants will file a terminal disclaimer, if necessary, when all of the remaining patentability issues have been resolved for this case.

**CONCLUSION**

Applicants believe that all outstanding issues in this case have been resolved and that the present claims are in condition for allowance. Nevertheless, if any undeveloped issues remain or if any issues require clarification, the Examiner is invited to contact the undersigned at the telephone number provided below in order to expedite the resolution of such issues.


Appl. No. : 10/638,173  
Filed : August 6, 2003

Please charge any additional fees, including any fees for additional extension of time, or credit overpayment to Deposit Account No. 11-1410.

Respectfully submitted,

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